

## AMENDMENTS TO THE CLAIMS

### 1-9. (Canceled)

### 10. (Currently Amended) An angular velocity sensor comprising:

a transducer; and

a control circuit portion operable to drive the transducer and to detect an angular velocity applied to the transducer,

wherein the transducer includes a drive electrode portion into which is inputted a drive signal to oscillate the transducer at a specific frequency, a monitor electrode portion operable to detect an oscillation frequency of the transducer and to output the detected oscillation frequency as a monitor signal, and a sense electrode portion operable to output a sense signal which is generated due to an angular velocity applied to the transducer and is synchronized with the monitor signal, and

wherein the control circuit portion includes a correction circuit portion operable to:

remove a noise signal component, caused by a mass balance of the transducer, of the sense signal detected erroneously, as if an angular velocity is occurring in the transducer due to the mass balance of the transducer when no angular velocity is occurring in the transducer, from a signal component of the sense ~~signal~~ signal;

generate a correction signal by attenuating the monitor signal; and

constantly remove the noise signal component from the sense signal by superimposing the generated correction signal on the sense signal.

### 11. (Currently Amended) The angular velocity sensor according to Claim 10, further

~~comprising~~ comprising a memory portion for storing in advance data to remove the noise signal component from the signal component of the sense signal, wherein the correction circuit portion is further operable to generate ~~a the~~ a correction signal by attenuating the monitor signal, based on the data stored in the memory portion ~~and the monitor signal~~, and to ~~constantly remove the noise signal component from the signal component of the sense signal by superimposing a generated correction signal on the sense signal.~~

- 12. (Previously Presented)** The angular velocity sensor according to Claim 11, wherein:
- the memory portion includes a data input terminal for the data to be stored; and
  - the data input terminal is brought into a conducting state when the data is stored in the memory portion, and brought into a non-conducting state after the data has been stored in the memory portion.
- 13. (Previously Presented)** The angular velocity sensor according to Claim 11, wherein:
- the correction circuit portion includes a ladder resistor and a switch portion operable to adjust a resistance value of the ladder resistor according to the data stored in the memory portion, and to generate the correction signal by attenuating the monitor signal using the ladder resistor.
- 14. (Previously Presented)** The angular velocity sensor according to Claim 13, wherein:
- the resistance value of the ladder resistor is set to be at least 100 times as large as a resistance value of internal resistance of the switch portion.
- 15. (Previously Presented)** The angular velocity sensor according to Claim 10, wherein:
- the noise signal component contains a first noise signal component generated in a state where a phase of the sense signal is not shifted with respect to a phase of the monitor signal; and
  - the correction circuit portion includes a first noise correction circuit operable to remove the first noise signal component.
- 16. (Previously Presented)** The angular velocity sensor according to Claim 15, wherein:
- the noise signal component contains a second noise signal component except for the first noise component, that is generated due to a phase shift between the monitor signal and the sense signal; and
  - the correction circuit portion includes a second noise correction circuit operable to remove the second noise signal component.
- 17. (Previously Presented)** The angular velocity sensor according to Claim 10, further comprising:
- a monitor amplifier operable to amplify the monitor signal, and a sense amplifier operable to

amplify the sense signal,

wherein degrees of amplification of the monitor amplifier and the sense amplifier are made equal.

**18. (Cancelled)**